

REMARKS

Claims 1-27 are pending in this application. Claims 28-43 have been added and contain material removed from the original claims. No new matter has been added.

1. Claim Objections

Claims 3, 4, 6, 15-17 and 22 have been objected to for including a broad range or limitation together with a narrow range or limitation that falls within the broad range. Specifically, the Examiner notes that the claims recite the terminology “preferably” and “most preferably”. Applicant has amended the claims to remove the objectionable language and has introduced the narrower range limitations in new dependent claims. Reconsideration and removal of the objection is respectfully requested.

2. Claim Rejections under 35 U.S.C. §112

The Examiner has rejected claims 7, 9 and 13 as being indefinite for failing to particularly point out and distinctly claim the invention. The Examiner has rejected claim 7 for reciting the phrase “or the like”. Claim 9 has been rejected because there is insufficient antecedent basis for the limitation “said first reaction mixture or said waxed first reaction mixture” in claim 1. Finally, claim 13 has been rejected because the preamble needs to include the word “system”. Applicant has amended the claims as suggested by the Examiner and has amended claim 9 so that it depends from claim 7. Applicant believes that these amendments have obviated the rejections. Reconsideration and removal of the rejections is respectfully requested.

3. Claim Rejections under 35 U.S.C. §103(a)

The Examiner has rejected claims 1-2, 4, 6-10, 14-17 and 21-25 under 35 U.S.C. §103(a) as being unpatentable over Caselli (US 5,455,289). Caselli is cited for teaching a process for stabilizing olefin polymers wherein stabilizers and additives are added to polyolefins using

Zeigler-Natta based catalysts, magnesium dichloride with aluminum alkyl compounds and electron donor and silica based support. Oils, waxes and paraffins are examples of commonly used stabilizers and additives for polyolefins. The Examiner argues that Caselli teaches all of the process steps with the exception of using a second or third aluminum alkyl compound. However, the Examiner argues that it would have been obvious to a person of ordinary skill in the art to add a second or third aluminum based catalyst to keep the catalyst activity up so that polymerization activity does not decrease over time due to catalyst poisoning. Applicant respectfully traverses.

First, it should be pointed out that the present invention is directed to a process for preparing a catalyst system for the polymerization of alpha-olefins. The polymers obtained by means of the catalyst system have low catalyst residue, good processability, high stereoregularity, and low fines (see page 3, lines 1-5). As is evident from the disclosure and the claims, the preparation of the catalyst in the catalyst system is an important feature of the invention. The process used to prepare the catalyst system comprises (1) a catalyst activation step and (2) catalyst prepolymerization. The activation step is itself comprised of two steps as follows:

In the first step:

- (a) the solid transition metal compound is contacted with a first organoaluminum compound in the presence of an oil to give a first reaction mixture, and

In the second step:

- (b) the first reaction mixture is contacted with a second organoaluminum compound to give a second reaction mixture.

The solid transition metal compound is prepared by e.g. contacting MgCl₂ or a complex thereof, TiCl₄ and an internal donor (see, for example, claim 14).

Caselli describes the polymerization of polyolefins (for example, propylene) using a catalyst. During polymerization, stabilizers are added to the process in order to stabilize the olefin polymers. The catalyst preparation process described in Caselli is fundamentally different from Applicant's claimed process. According to Caselli, the catalyst is prepared as follows:

- (a) MgCl₂ adduct is prepared by mixing MgCl₂ and ethanol in oil (Vaseline and silicon oil), and further mixing with cold heptane in order to get solid particles (after filtration and washing),
- (b) Contacting the adduct with TiCl₄ and then adding diisobutyl phthalate, and
- (c) After settling the solid, siphoning off the liquid and washing the solid. (col. 7, lines 10-41).

From the description set forth in Caselli, it is clear that this reference only describes the preparation of a normal solid transition metal compound. The reference is completely silent and fails to teach any further treatment or activation. It should be pointed out that Caselli does not explicitly teach or suggest performing a catalyst activation step much less carrying out a two-step activation step. Although Caselli may describe the use of stabilizers or additives, any stabilizers or additives used during the actual polymerization step have nothing to do with the catalyst activation step of the claimed invention. The Examiner has failed to specifically point to any teaching within this reference which would suggest performing a catalyst activation step. In fact, it is notable that the obtained catalyst of Caselli is normally used together with a cocatalyst (aluminum alkyl compound) and electron donors in the polymerization of the olefins (see col. 4, lines 60-65).

The foregoing comments demonstrate that Caselli did not contemplate performing the specific two-step catalyst activation step described in the instant claims. Moreover, the Examiner has failed to identify any teaching within the Caselli reference which would suggest using a second or third organoaluminum compound for such a purpose. As such, Applicant submits that the Examiner has failed to establish a *prima facie case of obviousness* and requests reconsideration and removal of the rejection.

4. Double Patenting

Finally, the Examiner has rejected claims 1-3, 6, 14, 15, 20, 21, 22, and 23 under the judicial doctrine of obviousness-type double patenting as being unpatentable over claims 1-36 of

U.S. Patent No. 6,576,710. The Examiner argues that the instant claims are not patentably distinct from the claims of the '710 patent because "each of the components of the catalyst system and the process of contacting such components to polymerize alpha olefins" have previously been disclosed. Applicant respectfully disagrees. First, Applicant would like to point out that a terminal disclaimer is unnecessary as the '710 patent and any patent issuing from the instant application would expire at the same time given that they both claim priority back to the same PCT international filing date. Second, Applicant would like to point out that the claims of the '710 patent are directed to "A process for the preparation of an alpha-olefin polymer" and that the claims of the instant invention are directed to a catalyst system used in the polymerization of alpha-olefins. MPEP 804.02 specifically states that when the claims differ from each other (aside from minor differences in language, punctuation, etc.), whether or not the difference is obvious, are not considered to be drawn to the same invention for double patenting purposes. In the instant situation, the claims of the instant application are drawn to a catalyst system whereas the claims of the '710 are drawn to a method of polymerizing alpha-olefins. The two sets of claims cannot be interpreted as being drawn to the "same" invention. Accordingly, Applicant requests that the obviousness-type double patenting rejection be removed.

Favorable consideration and early allowance of the claims is requested.

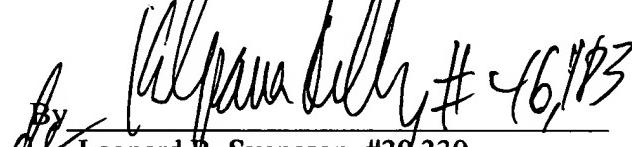
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Leonard R. Svensson (Reg. No. 30,330) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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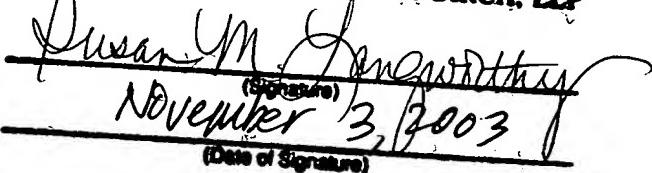
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Attachment(s): Abstract

(Rev. 09/30/03)

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(Date of Deposit)

BIRCH, STEWART, KOLASCH & BIRCH, LLP



(Signature)
November 3, 2003
(Date of Signature)